# Inside Wallops

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## NASA Scientific Balloon Sets World Record

Slowly rising from the Northwest region of Manitoba, Canada, near a small gold mining town called Lynn Lake, a massive NASA balloon began a journey, August 25, that took it to the fringes of space. Silently drifting in the rarefied upper edges of our atmosphere, the scientific balloon reached a peak altitude of 161,000 feet (49 kilometers), and with a volume of 60 million cubic feet (1.7 million cubic meters), was the largest balloon ever launched successfully.

*University of Delaware Photo*

***NASA's 60 million cubic foot scientific balloon prior to launch from Lynn Lake, Canada***

The balloon carried a solar and heliosphere experiment called Low Energy Electrons (LEE), weighing 1,500 pounds (690 kg), that was provided by Dr. Paul Evenson of the University of Delaware.

"Aside from our excitement and the fact that this balloon established a new record for balloon volume (50 percent greater than NASA's standard balloon designs), this flight should help establish a new platform for science such as ultra-violet and x-ray astronomy", said Steve Smith, chief of NASA's Balloon Program Office at Wallops Flight Facility.

NASA's largest standard balloon is approximately 40 million cubic feet (1.13 million cubic meters) and reaches an altitude of approximately 130,000 feet (39.6 kilometers).

"In addition to the great science Dr. Evenson is doing, this is a demonstration that balloons can reach extreme altitudes with relatively heavy payloads," said Danny Ball, Site Manager, National Scientific Balloon Facility, (NSBF), Palestine, Texas. "We hope this will lead to new interest from other science disciplines needing very high altitudes."

This flight was the sixth flight for the LEE payload in a series of balloon observations of cosmic electrons. Five previous flights have used both the LEE and the Anti-Electron Sub Orbital Payload (AESOP) instrument provided by Dr. John Clem, also from the University of Delaware's Bartol Research Institute.

Both instruments flew from Lynn Lake, on Aug. 13, 2002, on a 40 million cubic foot balloon that reached an altitude of 134,000 feet (41 kilometers). The total flight time was 23 hours, 14 minutes. Once the experiment was complete, a radio command was sent from a ground station to separate the experiment from the balloon. The command created a tear in the balloon material permitting it to fall to Earth. A parachute floated the experiment payload back to the ground. Science team members were taken to the landing site for recovery of data tapes within two hours of impact.

The LEE instrument was refurbished and launched again on Aug. 25, 2002, on the 60 million cubic foot balloon. As of noon EST on August 26, the flight was still in progress.

The LEE and AESOP instruments were flown in 1997, 1998, 1999, and 2000. Roughly 120 hours of data have been collected during the previous flights. All of the launches have been from Lynn Lake, which is 650 miles (1,000 kilometers) from Manitoba. Although originally funded by NASA, the National Science Foundation (NSF) currently funds research activities using the AESOP experiment. The LEE instrument was originally developed and flown by NSF and later flown by NASA.

The Wallops Flight Facility manages NASA's Scientific Balloon Program. Launch operations are conducted by the NSBF, which is managed for NASA by the Physical Sciences Laboratory of New Mexico State University, Las Cruces. Raven Industries, Inc., Sioux Falls, SD, designs and manufactures NASA's scientific balloons. The balloon for this launch was built in their plant in Sulphur Springs, Texas.

## *Wallops shorts…….*

### *In the News*

**Spaceflight Now** – "Balloon Seeks for Antimatter, Other Cosmic Particles"

### *Personnel Actions*

**Promotion**

Bernice Merritt, Balloon Program Business Manager, was promoted on August 12, 2002.

**Hire**

Jeff Reddish was selected for an AST, Launch and Flight Operations position in NASA's Range and Mission Management Office, effective August 26, 2002.

**Reassignment**

Amy Strong was selected for a Resources Analyst position in NASA's Resources Management Office, effective August 26, 2002.

### *Volunteers Needed*

The annual beach cleanup on Wallops Island is scheduled for September 14 beginning at 9 a.m. and takes about two hours. To sign-up call the Public Affairs Office on x1139.

**Amended Travel Orders**

The Financial Management Manual (FMM) 9700 series, section 301-71.110 regarding amendments to travel orders was recently changed.

When TDY travel is delayed within 7 days after the beginning date specified on the authorization, an amended travel order must be issued in accordance with 301-71.111, below. Travel started after the date specified on the travel authorization, but before the lapse of 7 calendar days, may be extended beyond the ending date specified in the travel authorization a corresponding number of days.

## *Norwegian Range Celebrates 40 Years*

The Andoya Rocket Range, Andenes, Norway, celebrated its 40th anniversary on August. 18. The first sounding rocket, a Nike-Cajun, launched from Andoya was on August 18. 1962. Ferdinand I was a Norwegian/Danish project.

The first NASA sounding rocket, Ferdinand III, launched from Andoya also was a Nike-Cajun. It was launched on Dec. 11, 1962. Since then, well over 100 NASA sounding rockets have been launched from the Andoya Rocket Range.

For more information on the range visit: http://www.rocketrange.no/

## *West Nile Virus Health Advisory*

The recent deaths in Louisiana from West Nile virus, and the detection of non-fatal cases elsewhere including the Eastern Shore have raised concerns about outbreaks of the virus throughout the eastern half of United States. Current data from the Centers for Disease Control (CDC) indicate that West Nile virus activity has been reported in 36 states plus the District of Columbia and New York City.

Despite the increasing incidence of the virus, the risk of acquiring West Nile virus is very small and becoming ill from the virus is even more rare. The CDC reports that even if bitten by an infected mosquito, less than 1% of the population who become infected will get severely ill. The even rarer case fatalities are greatest in the elderly and those who are immune compromised. To avoid any misunderstanding and unnecessary anxiety, it is prudent to learn about the disease and take a few extra precautions against mosquitoes.

West Nile virus is spread to humans by infected mosquitoes. Mosquitoes also spread the disease to horses, birds and some other animals. The disease is not spread from animals to other animals, animals to humans or by human-to-human contact.

Most infections of West Nile virus are mild with symptoms including fever, headache and body aches. Occasionally, skin rash or swollen lymph glands might be apparent. More severe infection may be marked by headache, high fever, neck stiffness, change in mental status, tremors, muscle weakness and vomiting.

Prevention and control of West Nile virus is most effectively accomplished through mosquito management programs conducted by local government agencies. There are specific steps individuals can take to reduce the risk of becoming infected with the virus.

The most effective control method is to avoid activities that increase the chance of being bitten by mosquitoes. This includes staying indoors at dawn and at dusk when mosquitoes are most likely to be active; wearing loose-fitting, long-sleeved shirts and pants; checking window and door screens for tears and repairing when necessary; and using mosquito repellents on exposed skin and clothing. Repellents containing the compound DEET (N,N-diethyl-meta-toluamide) are most effective. An effective repellent for adults will contain 30% DEET (10% for children). Higher concentrations have been found to provide no additional protection and may lead to irritation, especially in children.

Mosquitoes breed in standing water. A good preventive measure is the elimination of all standing water sources around houses and yards. Water from children's toys, jars, buckets, plastic wading pools and other unused containers should be emptied and inverted when not in use. Other sources of standing water easily overlooked include saucers under outdoor plant containers, pet watering dishes and birdbaths. Clean and replace with fresh water at least twice a week. Clogged roof gutters, leaky pipes and outside faucets are other sources of standing water easily overlooked. Don't forget to dispose of old automobile tires. Water gets into these and they become a prime place for mosquitoes to breed.

More information can be found on the NASA Occupational Health Program website at http://ohp.nasa.gov or at the Centers for Disease Control website: http://www.cdc.gov/ncidod/dvbid/westnile/index.htm

Sympathy is extended to
the family and friends of
***Fred Bender***
who died July 19. Prior to his retirement from NASA Wallops Flight Facility, Bender worked in the Machine Shop, Building F-10.
At the time of his death,
he resided in Elliott City, MD.
Bender's cremated remains were placed in Arlington Cemetery on August 15.

## *Fitness Club News*

Plans are underway by the Wallops Fitness Club to develop a new outdoor 1/4 mile run / walk track at Wallops. Before proceeding with the plan, data is needed on projected use by employees. Employee input is urgently needed and may determine the fate of this project. Remember, together there is nothing that we cannot accomplish. Please email your response to one of the following: Robert Tittle at tittle@osb.wff.nasa.gov, John Gerlach at gerlach@osb1.wff.nasa.gov, or Roland.Wescott.1@gsfc.nasa.gov, Thomas.F.Wilson.1@gsfc.nasa.gov.

- How often per month do you run/walk on-site?

- Would you prefer a 1/4 mile run/walk track constructed with dirt or soft cinders to help prevent injuries or a run/walk trail?

- Given the choice to have a track near the softball fields or near the gym, which would you be more likely to use and why?

**Did you know** — Wallops has one of the best equipped exercise facilities on the Eastern Shore and membership is only $20 per year? Visit the following web site: http://www.wff.nasa.gov/~Fitness/

## *September Events at the NASA Visitor Center*

**September 7: "Model Rocket Launch"**
A model rocket launch will be held at 1 p.m. Models of various rockets will be launched. Model rocketeers are invited to bring their own rockets and launch them. The launch will be canceled if it is raining or winds exceed 18 mph.

**September 21: "Sun/Earth Connections"**
Celebrate the impending equinox by learning all about the sun and how it affects us on Earth. Following the presentation, each child will make a functional sundial. Materials will be provided by the Visitor Center. The program begins at 1 p.m. and will last 45 minutes.

**"Puppets in Space"**
"Puppets in Space", a 10-minute puppet show, will be presented at 11 a.m. on Saturdays and Sundays. Puppet astronauts and Sam the monkey will explore space flight, including the space suit. An eight-minute version of the film "Astrosmiles" follows the puppet show.

**Sundays: "Humans in Space"**
"Humans in Space" is the subject of a 1 p.m. program for children of all ages. The 30-minute program looks at living and working in space, including a review of the astronauts' culinary delights and their wardrobe.

**Daily: "Space Ace"**
Children ages 5-10 years can earn a "Space Ace" certificate and a lithograph during their Visitor Center experience by completing an activity sheet.

The Visitor Center, part of the Robert L. Krieger Education Complex, is open from 10 a.m. to 4 p.m. Thursday through Monday. Admission to Visitor Center programs is free. For further information, please call x2298 or visit the Web site: http://www.wff.nasa.gov/vc/

## *Verizon Wireless Representative on Site*

Wayne Knapp of Verizon Wireless to be available on September 4 from 11 a.m. – 2 p.m. in the front room of Building E-2 for those who wish to hear about Verizon's newest promotions, upgrade from analog service to digital service or to answer questions regarding service with Verizon Wireless. Sponsored by the Wallops Exchange and Morale Association.

***Inside Wallops*** is an official publication of Goddard Space Flight Center and is published by the Wallops Office of Public Affairs, Extension 1584, in the interest of Wallops employees. Recent and past issues of *Inside Wallops* also may be found on the NASA Wallops Flight Facility homepage: www.wff.nasa.gov

Editor Betty Flowers